DOCUMENT RESUME

ED 119 277 CS 501 265

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TITLE Video Simulation as an Educational Tool.
PUB DATE 27 Dec 75
NOTE 11p.; Paper presented at the Annual Meeting of the Speech Communication Association (61st, Houston, Texas, December 27-30, 1975)

EDRS PRICE MF-$0.83 HC-$1.67 Plus Postage
DESCRIPTORS Affective Objectives; Behavioral Objectives; Cognitive Objectives; *Feedback; Higher Education; *Leadership Training; *Simulation; *Teaching Methods; *Video Tape Recordings

ABSTRACT

Videotape simulation, at the basic level, is any simulation experience in which videotape is used to provide feedback to the participants. This is an especially effective method of conducting leadership training because it allows each individual to integrate the cognitive, behavioral, and effective levels of learning within any of a variety of educational settings. Videotape is employed in two ways during training simulations: to provide feedback to participants about their own behavior, its consequences and effects, and the process of their group and to provide input of new material into the simulation. The most impressive aspects of simulation are the facilitation of participants' acquisition of cognitive learning occurring elsewhere in training sessions and the depth of participant involvement. (JM)

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# VIDEO SIMULATION AS AN EDUCATIONAL TOOL

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A Short Course
"Video Simulation in Leadership Training"
Speech Communication Association Convention
Houston, Texas
December 27, 1975

It is possible to identify a variety of educational activities. We recognize three basic types or ways of promoting education: teaching, training, and therapy. While all of these share a concern for bringing about change in the learner, in other ways they differ. Teaching, training, and therapy can be distinguished in terms of the qualifications, experience, and education of the "helper," the kinds of problems with which each is concerned, the kinds of change each attempts to promote, and the kinds of data each utilizes in its process. We do not intend to explicate these differences in detail but merely would like to note both the differences and especially the underlying similarity between these and every educational process: the goal of education is to promote change or learning.

It is also possible to identify different levels at which people learn. We recognize three basic levels of learning: cognitive, skill, and affective (Barnlund & Haiman, 1960, pp. 375-380). Cognitive learning involves gaining new ideas, thoughts, and concepts; skill learning involves acquiring new behaviors--becoming able to do new things, to act in new ways; affective learning involves acquiring new feelings and meanings in one's life, especially about oneself and one's relation to the world. While all of these are usually part of any educational experience, it might be possible to say that teaching usually specializes in cognitive learning, training in skills learning, and therapy in affective learning. The most significant and important learnings--those that last the longest and are most fully felt--are ones in which all three levels are integrated and unified.

It is also possible to identify a large number of different methods which could be employed to enhance any of the levels of learning in any of the contexts within which learning occurs. There are far more methods available to the educator than could possibly be listed here: examples of these methods include lecture, discussion, structured exercises, role-playing, and encounter. All methods have their own advantages and usually accompanying disadvantages. There seems to be no evidence that any one method is better than any other method; but the most effective educational programs may be those in which several methods are integrated and combined (Barbour & Goldberg, 1974, pp. 50-58). One especially exciting and effective method which can be used in any educational process is "videotape simulation." Videotape simulation can be used in all three educational settings, and has the advantage of providing

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a situation within which the cognitive, skill and affective levels of learning can be synthesized into a unified whole, with a particular focus on learning new alternative ways of acting (behavior or skill learning).

The purpose of this paper is to acquaint the reader with videotape simulation and more specifically to describe the procedures we employ in utilizing videotape simulation (in conjunction with other methods) in conducting leadership training. We will first consider the nature of videotape simulation, then we will cover several aspects of feedback, particularly as related to videotape simulation, and lastly we will describe various techniques and phenomena with which the educator using videotape simulation should be familiar.

## Videotape Simulation

Videotape simulation at its most basic level is any simulation experience in which videotape is used to provide feedback to the participants. We will first define simulation and then consider how videotape can be used to provide feedback.

Thomas and Deemer (1957) paraphrase Webster in defining simulation in this way: "to simulate is to obtain the essence of, without the reality" (p.5). Simulation re-creates some real-life setting and adapts it to educational purposes. Simulation is not especially new; war simulations are probably the oldest use of the technique, and the United States military presently spends large sums of money on various training simulators, including space exploration and war games. The game "Monopoly" is a simulation with which most of us are familiar. As Taylor and Walford (1972) put it, Monopoly is a simulation game that "seeks to represent a real-life situation with a simpler 'model' version of the situation, albeit something of a caricature" (p.13).

Simulation involves both role-playing (the participants each assume an assigned role) and gaming (there is a structure, relationships, and rules). In simulation, the individuals usually assume roles that are representative of the real world and proceed to function in these roles, making decisions consistent with them. In turn, by noting the outcomes of these decisions and actions, always in relationship with the other simulation participants, the individuals receive feedback about the effects of their behavior and are provided with an opportunity to "try out" new behaviors. Through the feedback they receive (from fellow participants, trainers, and/or mechanical devices) as well as from observing the effects of their own behavior, each participant can reflect on the relationship between their decisions and the consequences of those decisions in action; and hence, participants can consider changes in their own behavior they may wish to make.

Simulation allows individuals to experience situations in which they need learning, without having the possibility of obtaining the consequences of making bad decisions or hasty actions that might accrue in the "real" situation. Because the important elements of the situation are retained and the irrelevant ones discarded in creating a simulation, the situation is sufficiently real yet characterized by safety for the participants. Simulation allows for control by the educator so that he or she may eliminate or magnify any element of the simulation to emphasize a certain learning or to keep potential harm from occuring.

We employ videotape in two ways during our leadership training simulations. The most important use of videotape is to provide feedback to the participants about their own behavior, its consequences and effects, and the process of their group. This use will be discussed in detail in this paper. The second use of videotape involves providing input of new material into the simulation. Alternately this process can and is done through written and oral means as well.

While the participants are engaged in their simulation activity, we are openly videotaping the process. Always on the alert for material that may be useful for feedback, the tapes are edited in order to provide the greatest information for all participants about their own behavior in the least amount of time. Feedback is most useful immediately after the event occurs. We utilize many different types of feedback in the leadership training simulation, including discussions, dyadic interviews, structured staff reports, and videotape. While other types of feedback are occuring, we utilize an engineer to edit the videotape playback so it is available for participants' viewing as soon as possible following the experience.

## Feedback

An important part of any learning experience is that the participants need to receive information about how they are doing. We call this information that allows learners to know how successful they are, "feedback." Information is "fed-back" to the individual which allows the learner to decide how effective and appropriate his or her behavior has been.

In order to give individuals feedback it is necessary to know what it is that they are supposed to be learning, so you will know what to feed-back. In order for any form of feedback to be maximally effective, it must be focused specifically on the learning which is desired. If the feedback doesn't involve exactly the behaviors the trainees are supposed to learn, they will have a hard time knowing how they are doing, and hence they will not be able to creatively alter their behavior in directions that are more productive and satisfying.

There are basically two kinds of feedback. One is feedback which rewards the learner for desireable and correct behaviors and the other is feedback which punishes the learner for incorrect and undesireable behaviors. We might call the first kind "positive feedback" or positive reinforcement, in that this feedback suggests the individual is doing well and should continue behaving as before. We might call the second kind "negative feedback" or negative reinforcement, in that this feedback implies that the individual is not doing well and should discontinue his or her present behavior and try something new. Research seems to support the greater effectiveness of positive feedback over negative feedback in promoting most types of learning in most situations. While it is essential to employ both forms of feedback at appropriate times, we believe that most people seem to learn better when they are rewarded for their successes than when they are punished for their mistakes.

In the leadership training simulation, or in any simulation, mechanical feedback can be provided in essentially two ways. One can use either audio or video recording equipment (some simulations utilize computers to process information and to feed-back either audio or video information). While we have

chosen to use videotape recording and feedback, there are those who consider this not only unnecessary, but perhaps less effective than merely using audio recordings. While we do not share this conclusion, the concern is a most valid one. The reason for this belief is that most people are not accustomed to seeing themselves on television, and when they do see themselves during the VTR playback session, they become attuned primarily to personal mannerisms, appearance, dress, etc., and often are unable to attend to the particular behaviors on which we would like them to focus. Simply, it will be impossible to learn about leadership and one's own leadership behavior if the individuals are making observations about the attractiveness of their hair or dress or about the quality of their voices. Therefore, it is necessary for the trainers to be minutely specific about the behaviors they desire the trainees to observe. Sometimes "desensitization" sessions will be held which give individuals a chance to get past this initial infatuation with their own aesthetics and onto the more substantive learning issues.

Using mechanical feedback, whether video or audio, in conjunction with a sensitive and competent trainer, in a sense allows all trainees to provide their own feedback through their own observations. Because the machine records nearly everything that happened in the group, when each participant observes the tape and creates a first-hand impression of their own behavior and its effectiveness, the feedback becomes as "objective" as possible.

Providing feedback of any kind to individuals can be an anxiety-promoting experience for both the giver and the receiver of the feedback. This anxiety can be reduced by the giver of the feedback if you remember to restrict yourself to reporting the behaviors you observed and the consequences you observed which seemed to accrue from those behaviors. You can report patterns of behavior if you observe these. You can even make inferences about unobserved and internal motivations if these are carefully labeled as such and left open for agreement and disagreement. The giver of the feedback is not and should never be in the position of evaluating people: a position which would reasonably lead one to feeling more than a little uncertain. You, as a educator, are merely reporting what you observed without making any judgements about the quality of the person who is the object of your feedback. This does not mean that you can not evaluate the effectiveness of particular behaviors. It does mean that you should keep clear the distinction between reporting an evaluation of the effectiveness of a particular behavior ( or the correctness of a particular behavior) and making an evaluation of the person who is engaging in the behavior.

If the trainer is not evaluating people but is rather only reporting observations, it is likely that the trainees will also feel some safety in this posture. After all, they will not feel as though you are about to evaluate them, and that their whole self-concept is at stake. The educator should do everything possible to foster and encourage a feeling of security and safety in the training situation. In order to create a warm, supportive, and caring climate, in which feedback has the best chance to be effectively acted upon, the trainers must foster both honesty and kindness in their own and others' feedback behavior.

It is also possible to videotape individuals while they observe themselves on the videotape. This form of feedback is called "double self-confrontation"

as contrasted with the single confrontation. The double confrontation technique allows individuals to observe themselves observing the first videotape. This technique is employed in situations where complex skills are being learned and one has both the time and the equipment for this added reinforcement. Boone and Goldberg (1969) found that, in training speech therapy clinicians, double confrontation held interest at a higher level than single confrontation, and provided more effective in changing behaviors for the clinicians with lower self-esteem. The advantages of this double confrontation technique revolve around the manner in which it provides more feedback about a specific behavior, and with people with lower self-esteem, it is more effective in modifying their behavior. The disadvantages of this technique involve the additional equipment and especially the time that is required for both recording and playback. Perhaps a suitable combination of single and double confrontation techniques would provide a balanced, effective video feedback system.

## Miscellaneous Phenomena and Techniques

There are a number of aspects of our videotape simulation that require description in more detail.

### Interventions

The training staff makes two kinds of interventions during the group process. One type of intervention provides the group with new information which it may need to resolve a problem or which may stimulate new interest around an additional aspect of a problem. These techniques all involve the aspect of simulation which we call "time-spanning." The simulation compresses weeks and months into minutes and hours. As the situation changes, new information is needed. Therefore, the trainers provide input at appropriate times in the form of interventions which seek to assist in this time-spanning aspect of simulations. Often, many of these interventions can be anticipated and the material typed out or recorded in advance. Other potential interventions can not be anticipated, and the effectiveness of these depends upon the spontaneity and creativity of the individual trainer(s) entrusted with this responsibility. These interventions are absolutely essential to an effective simulation.

The second intervention type is less often used than the first type, and is most appropriate to training situations which involve aspects of leadership, interpersonal communication, or small group communication. This intervention points out to the group some aspect of their group process or some aspect of the problem they are working on. Again, these intervention types have implications for the time-spanning nature of a simulation, since giving a group information about its process can allow it to move past that phase of its development more quickly than it otherwise would have (Culbert, 1970). The same is true if the trainer points out an unnoticed aspect of the group's current problem. Both of these interventions should be undertaken gingerly and with full respect for their potential implications. One must not rush into the group with erudite interpretations of the group's process, nor should one conveniently solve all the group's problems. On the other hand, one should not allow the group to flounder indefinitely, hung up on one phase of a group's development or restricted by an unnoticeable aspect of the problem. Making an intervention of this second type, and to a lesser extent any intervention at

all, will not generally engender appreciation from the trainees. Occasionally, there seems to be a certain amount of resentment on the part of group members; interventions can be interpreted as interruptions especially if the group is experiencing some anxiety. While the interventions have consistently been the aspect of the simulation that is least liked by the participants, we have decided not to abandon them in our simulation training strategy. They seem to us to be an essential and critical part of the simulation technique and facilitate its process and the participant's learning, whether or not the participants are aware of that at the time.

Flip-Flop Groups

A second technique we would like to discuss is the way we have two, largely separate, groups operating at the same time. As far as we are aware, this technique is unique to our simulator. The technique itself, involves creating two groups of equal size which alternately participate in the simulation group and observe the other group undergoing the simulation. This technique is incorporated into the time-spanning concept by having each group simulation be a separate, but ongoing group. While this creates certain problems that will be discussed below, it has a number of unique advantages. The advantages of this are that all individuals get to watch, as sort of "external" observers, a group of individuals who are dealing with the same situation with which they have been or will be dealing. Each gets to see how others deal with the situation and to perhaps observe behaviors that could be tried out at a later time. It also allows each individual to gain more experience in making specific observations about individual behavior as well as group processes, since we assign each person to observe a specific other as well as to observe group processes as a whole. One aspect of leadership is being sensitive to what's happening in the group one is leading, and this presupposes one is able to make careful observations about the group. By alternating acting and watching, we hope to enhance the individual's abilities to be a "participant observer"--to be able to watch while acting. A third advantage of this two-group technique is that it allows an opportunity for each individual to get some specific feedback about him or her self through the use of the time alloted for dyads. We also encourage these dyads, who observe each other, to sit together during the VTR playback and to make explicit observations during this time as well.

There is also a problem associated with this technique. Besides the obvious one of doubling the number of individuals involved at any one time, certain group-phenomena arise. Each group must and does develop some relationship to the other group. The trainer must be aware of these possibilities. Sometimes this relationship is friendly competition; sometimes it involves ignoring and redoing the work of the other group; sometimes a sort of resentment toward the other group develops--made all the more difficult by the ways in which "they" confuse and muddle "our" problem during "their" sessions of the organization. Some groups develop cooperation between their members; often breaks and meals are used to do both intra- and inter-group planning.

Debriefing

A vital part of an effective and responsible simulation is what we call "debriefing." The simulation experience, if it has been effective, has been both intense and involving. Individuals have learned something about their

own behavior and may have learned some new behaviors to experiment with in the "real world." Debriefing allows a time to reflect on the days activities, remembering that a simulation is a simulation--a re-creation of the essential elements in a situation with few of the hazards of "realness." A significant quantity of time is necessary for individuals to be allowed to discuss what has occured to them during the day and what implications it has to them for their everyday lives. While our style is not to force anyone to talk during this period, we try to encourage an atmosphere where each individual will express his or her feelings, hopefully letting out and leaving behind anxiety or negative learning and sharing with others positive reactions. This discussion, in our opinion, can easily be terminated too early, and the trainer should patiently assure that no one is leaving the simulation with unresolved and unexpressed anxieties about the day.

Group Growth and Development

The trainer also needs to be aware of the ways groups grow and change during their life as groups. The literature on "group growth and development" is relevant here (e.g., Bennis, 1964; Mann, 1967; Tuckman, 1965). Groups will change and develop during the course of a simulation day. Furthermore, if a simulation is part of a larger educational program, groups that enter it later in the experience will be different than the groups which simulate early in the educational experience. Groups composed of previously acquainted members will be different (and more initially developed) than groups of strangers. The trainer can and should be sensitive to both how developed groups are when they begin the simulation and to the ways in which each group develops during the exercise. This information may be appropriate feedback to give the group either in the form of an intervention or as part of a structured feedback session from the staff.

## Conclusion

We began this paper by recommending videotape simulation as an especially effective method because it allows each individual to integrate the cognitive, behavioral, and affective levels of learning within any of the educational settings. Since then, we have described primarily how videotape simulation can enhance learning at the behavioral level. We would not want to leave the impression that behavior learning is all videotape simulation can accomplish. Nor would we want to imply that training, the setting with which we have been most involved with simulation, is the only setting in which it is useful. Though we are not involved in conducting therapy, we feel confident that the technique could be useful in that setting. We have used the videotape simulations in academic contexts (e.g., an undergraduate class in leadership), and found it quite successful.

What impressed us most about the simulation was how it facilitated the participants' acquisition of much of the cognitive learning that occured elsewhere in the training sessions. Different styles of leadership, various group processes, interpersonal behavior, etc. all found life in the simulation. The staff comments, critiques, and feedback were directed toward increasing this integration; but we found participants on their own attempting to make sense of their own behavior and the behavior of those around them in terms of what

they were learning. Participants seemed to know the concepts better after the videotape simulation experience.

Equally impressive to us was the depth of involvement participants reported having during simulation. While we are all somewhat skeptical about self-reported data collected in the afterglow of an enjoyable experience, our observations of the participants as well as follow-up data reinforce our belief in the extent to which, for many of the participants, simulation facilitated a serious self-analysis--sometimes, for example, confirming their appreciation of their interpersonal skills, sometimes leaving the individual questioning his or her style of leadership. The simulation generated considerable involvement and self-analysis and had a significant impact on the participants--affective learning at its best.

It is precisely the involvement generated by simulation and the power we think it contains that leads us to urge caution and respect with regard to its use. Any educational method that is powerful enough to be effective in promoting constructive change and growth, is also powerful enough to be equally "effective" in promoting destruction and damage. Any educational experience can be "for better or for worse" (Carkhuff, 1971). It requires experience, and an individual sensitive to human needs to employ videotape simulation in a productive way. As a matter of fact, it requires several of these individuals cooperatively working together.

There are always risks involved when dealing with human psyches, but these risks are measured against the potential growth for the participants. The educator must be in a position to maximize the effectiveness of any method; this is especially true for videotape simulation. Just as no individual should be "forced" or "coerced" into training, neither should all educators be unduly encouraged to use these methods. The fact is that some people should <u>not</u> undertake what has been described above.

There is a certain measure of anxiety involved in every educational activity, for both the student and the educator--that is as it should be. The educator who is unable to "handle" the higher levels of anxiety (both one's own and the students') which are created by this rather emotionally involving method, would be well advised to avoid it. In order to do successful teaching, training, or therapy, you must find, develop, and adapt methods that fit you, your needs, capacities, comfort levels, etc. Videotape simulation is, after all, only a method--and no method has ever or is ever likely to establish itself as the best method. Productive learning can occur in many different ways. Videotape simulation seems to us to be one especially effective method for use in conducting leadership training.

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